

REMARKS

The claims in the case are 1, 3-22, and 25. Claim 24 is canceled and claim 25 was withdrawn from consideration. The only remaining independent claim, claim 1, is amended by inserting another limitation, the reason for which will be explained below. Applicant will first summarize the invention, as in the last response, and then will address the rejection and the amendment.

Summary of the Invention

Although defined more completely by the claims, the invention has a flame resistant sheet attached to the bottom of a candle that is not in a container. The flame resistant sheet extends outwardly at least an inch from the axis of the wick. A wick support is sealingly attached to the flame resistant sheet so it forms a barrier preventing molten wax from flowing up the wick from the lower end of the wick.

The purpose of the invention is to provide some safety protection to consumers who fail to do what they are supposed to do. Some consumers seem unaware of or ignore the fact that, when a candle burns all the way down to near its bottom, there can be several, severely dangerous consequences if the candle is setting upon a flammable surface, such as a wooden table top. The molten pool of wax surrounding the wick below the flame can melt through the bottom and flow onto its support surface. This can leave the wick still burning with the wick lying in a molten wax pool and on the wooden surface. The out-flowing molten wax can also carry particles, such as match tips, with it out onto the wooden surface where they act as secondary wicks, burning while lying in

the wax and on the wooden surface. Because of these hazards, candles should be burned only when placed on a heat resistant non-flammable surface or on a non-flammable candleholder. But some consumers do not do so.

The flame resistant sheet of the invention can improve the probability that these dangerous consequences will not cause a fire. This is especially true if the wick support is attached to the sheet. The reason the flame resistant sheet is joined to the bottom surface of the candle is so that it will stay with the candle. The flame resistant sheet can prevent a subsurface fire by providing both a barrier to fuel, usually molten wax, and an ignition barrier; that is, it separates the candle flame from the surface beneath it. During testing by the inventor, it was not uncommon to see a scorched subsurface that did not burn because there was no fuel, oxygen or ignition source.

The reason the flame resistant sheet extends out at least an inch is so that it extends out as far as applicant believes the molten pool is most likely to leak through and covers the area where a flaming wick is most likely to settle. The candle wax typically melts below the flame down to an arcuate interface between the liquid wax and the solid wax. Consequently, the center of the candle bottom is usually the first part to be subject to having the molten wax leak onto the supporting surface.

The Prior Rejection and Applicant's Response

The examiner rejected independent claim 1, as well as several dependent claims, under 35 U.S.C. 102(b) as anticipated or, in the alternative, under 35 U.S.C. 103 as obvious over *Pappas* (U.S. # 5,842,850) cited by applicant. The examiner makes several observations about what is taught or shown in the *Pappas* reference that applicant agrees are accurate. However, the examiner makes some critical observations that are incorrect.

With reference to Fig. 13 of *Pappas*, the examiner says that the plate/sheet (114) is described as being mounted to the bottom of the candle (110) and is therefore regarded as "joined". That is not what the *Pappas* says or what it teaches. Although the examiner's words differ very little from what the reference says, the difference is critically important. The reference says that the Fig. 13 embodiment has "a pedestal 112 attached to a plate 114 mounted to the bottom of the candle" (column 5, lines 46-47). The reference in both the text and the drawings make it clear that the Fig. 13 embodiment shows a pedestal and a plate formed together as a unitary body. The description makes it clear that it is this unitary combination of a pedestal and the plate 114 that is attached to the bottom of the candle. It is very clear from this reference that it is the pedestal that is the critical component on the invention described in the reference. It is the pedestal that must be attached to the bottom of the candle of the reference. The reference even gives an alternative way to attach the pedestal to the candle (col. 5, lines 58-60). In other words, the reference doesn't say that the plate is attached to the bottom of the candle. It only says that the combination is attached.

Of course, if the pedestal is attached to the candle, and the plate is attached to the pedestal, then in a sense the plate is attached to the candle because it is carried by the pedestal. But a teaching to attach the pedestal to a candle bottom is not a teaching to attach a plate alone (i.e. without the pedestal) to the bottom of a candle.

The examiner said that he "considers that the pedestal (112) is part of the sheet (114)". It is true that they are joined to each other as part of the unitary body. But they are still two components that have separate functions. A modern telephone handset has a speaker and also has a microphone and they are joined together as a unitary body. But that does not make the speaker a part of the microphone. This is important because a teaching to do something with one component, such as attaching a pedestal to the bottom of the candle, is not a teaching to do the same thing with the other component when the components are separated. The pedestal is not a part of the sheet as the examiner states. The reference says (col. 5, line 46-47) "a pedestal 112 attached to a plate 114" (emphasis added). The fact one is attached to the other makes it clear that the pedestal and the plate are two different things that conveniently can be attached together. But attaching them together does not make one the other.

It is believed clear that the present invention does not involve a pedestal. That was the invention of the reference. In fact the present invention has no pedestal. The drawings, description and claims of the present invention make it clear that the wick support of the present invention is attached to the sheet itself. It is not attached to a pedestal that is attached to a sheet. In order to make that fact very clear in the claims, claim 1 is amended to now recite that the sheet is "substantially flat" so that it is clear that

there is no pedestal component. This is not new matter because the drawings show a multitude of embodiments having the sheet illustrated as being flat.

The operation or function of the pedestal in the reference and the sheet in the present invention are entirely different. The purpose of the pedestal is to extinguish the flame before the wick burns all the way down. It raises the bottom of the wick above the bottom of the wax so that the flame will be extinguished while there is still a candle segment of short height remaining. The purpose of the present invention is to provide a flame and liquid barrier that gets carried along with the candle, essentially unnoticed by the consumer. Thus, a person of ordinary skill would not even have considered the reference patent as teaching anything about the present invention, unless of course for they had read the teaching in applicant's present application.

In order to modify the reference to arrive at applicant's claimed invention, three steps would be required, none of which are suggested by the prior art. First, the pedestal would have to be removed from the plate of the Fig. 13 embodiment in the reference. Second, the plate itself would have to be joined to the bottom of the candle. Third, the wick support would need to be attached to the sheet itself. These modifications would not be obvious under the standards of the MPEP 2143 which says:

2143 Basic Requirements of a *Prima Facie* Case of Obviousness

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaack*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

The first modification, removal of the pedestal, would not be obvious because the pedestal is the critical component of the invention in the reference and removing it would be contrary to its teaching, would change its principle of operation and would render it no longer useful for its intended purpose. MPEP 2143.01 says:

THE PROPOSED MODIFICATION CANNOT RENDER THE PRIOR ART UNSATISFACTORY FOR ITS INTENDED PURPOSE

If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984)

THE PROPOSED MODIFICATION CANNOT CHANGE THE PRINCIPLE OF OPERATION OF A REFERENCE

If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959)

Both the first step, removing the pedestal, and the second step, joining the plate itself to the bottom of the candle, with no pedestal joined to plate, would not be obvious because that is not taught in the prior art. As stated in MPEP 2143.01:

THE PRIOR ART MUST SUGGEST THE DESIRABILITY OF THE CLAIMED INVENTION

"In determining the propriety of the Patent Office case for obviousness in the first instance, it is necessary to ascertain whether or not the reference teachings would appear to be sufficient for one of ordinary skill in the relevant art having the

reference before him to make the proposed substitution, combination, or other modification." *In re Linter*, 458 F.2d 1013, 1016, 173 USPQ 560, 562 (CCPA 1972).

The third step, attaching the wick support to the sheet instead of to the top of the pedestal would not be obvious for the same reason: it is not shown in the prior art. In fact, in Fig. 14 of the reference, the wick support is clearly shown not attached to the plate. The reason is that the Fig. 14 embodiment functions on entirely different principles than the present invention. Attaching the wick support to the plate of the reference is directly contrary to the teaching of Fig. 14 of the reference. There is no teaching in the prior art to attach a wick support to a separate sheet that is itself joined to the bottom of a candle.

The examiner says (paragraph beginning at bottom of page 3) that the *Pappas* reference teaches several forms that the wick support may take including in Figure 7 one that is sealingly bonded to its support layer. That statement is accurate, but referring to it generically as a "support layer" does not make it a separate sheet. None of the embodiments in the reference sealingly bond the wick support to a separate sheet attached to the bottom of the candle. If the wick support is bonded to anything in the reference, it is bonded to a container floor or to a pedestal. It is never bonded to a sheet. In fact the Fig. 7 embodiment, specifically referenced by the examiner, illustrates, as the "support layer", the bottom of the container 12, the reference numeral 12 being on that figure. As explained in previous responses, applicant's invention becomes superfluous and unnecessary if the candle is placed in a container.

Therefore, to summarize, the invention as claimed is not obvious and is patentable because the prior art does not teach or provide any suggestion or motivation for:

(1) separately using a sheet alone, that is a substantially flat sheet without a pedestal, with a candle;

(2) joining such a sheet to the bottom surface of a freestanding candle; and

(3) attaching a wick support to the joined sheet.

These features, alone and in combination, are present only in applicant's invention and therefore are not obvious.

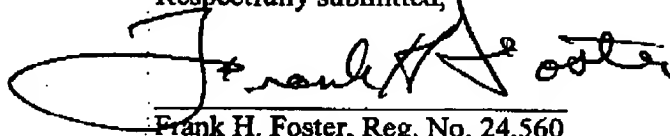
Therefore, reconsideration and allowance are respectfully requested.

A request for a one-month extension of time is enclosed. The Commissioner is authorized to charge Deposit Account No. 13-3393 the amount of \$55.00 for the extension fee.

The Commissioner is authorized to charge Deposit Account No. 13-3393 for any insufficient fees under 37 CFR §§ 1.16 or 1.17, or credit any overpayment of fees.

Respectfully submitted,

11/5/04
Date of Signature



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Enclosures: Extension of Time Request

Fee Transmittal - deposit account \$55.00

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